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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,245	09/15/1999	FRANK LEYMANN	GE998-078	7155

7590 07/10/2003

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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2127

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DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/396,245

Applicant(s)

LEYMANN ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 2.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This final action is in response to Paper number 2, filed on 9-15-02. Applicant's arguments have been fully considered but they are not deemed to be persuasive. Claims 1-6 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "said method being further characterized by comprising a timed-evaluation-step, said timed-evaluation-step evaluating:

- if at least a first one of said incoming control-connectors is associated with a time-interval
- if said time-interval has been met;

and, in the affirmative case, said timed-evaluation-step is continuing the processing to start said target-activity even if not all truth-values of said incoming control-connectors have been posted yet:

- if the truth-value of said first incoming control-connector has been posted;
- if said truth--value evaluates to TRUE"

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 recites the limitation "process model." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being unpatentable by Davis et al. (hereinafter Davis) (US 5,870,545).

4. Referring to claim 1, Davis teaches a computerized method for processing of start-conditions processed by a computer systems acting as a Workflow-Management-System (WFMS) or a computer system with comparable functionality [*"system and method for performing flexible workflow process compensation in a distributed workflow management system"*, see Abstract, and *"forward arc triggers the starting of the node"*, col. 6, lines 43-47]:

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- said WFSM comprising at least one process-model said process-model comprising one or more process-activities being nodes of an arbitrary graph and directed control-connectors of said graph defining a potential control flow within said process-model [*"HP OpenPM Process Model"*, col. 6, lines 26, *"directed graph 40 consisting of a set of nodes connected by arcs as displayed on the HP Open PM user interface"*, col. 6, lines 32-34, *connectors such as FA1, FA3, ..., Fig. 10*];
- said method evaluating, if a target-activity may be started, by evaluating the truth-value of a start-condition once the truth-values of all incoming control-connectors of said target-activity have been posted [*"each rule node 151 contains a list of condition-action rules. The condition is a Boolean expression of values, such as the execution status of other nodes, the time at which each incoming arc was fired and other data used in the process instance."*, col. 12, lines 44-51];
- and said method being further characterized by comprising a timed-evaluation-step, said timed-evaluation-step evaluating:
 - o if at least a first one of said incoming control-connectors is associated with a time-interval [*"rule node 42"*, *"time at which each inward arc is fired and process-relevant data associated with the process instance"*, col. 7, lines 9-15]
 - o if said time-interval has been met [*time interval has been met when the "inward arc is fired"*, col. 7, lines 9-15];
- and, in the affirmative case, said timed-evaluation-step is continuing the processing to start said target-activity even if not all truth-values of said incoming control-connectors have been posted yet [*"rule node 151"*, *"condition-action rules"*, *"the condition is a*

Boolean expression of values”, “fired”, col. 12, lines 44-51, “every activity instance has a start time and a complete time”, col. 12, lines 24-26],

- if the truth-value of said first incoming control-connector has been posted
[“raised and subscribed by rule nodes 151”, “events”, col. 12, lines 52-60];
- if said truth--value evaluates to TRUE *[It is inherent that the “arc is fired when the “Boolean expression” is TRUE. Col. 12, lines 44-51].*

5. Referring to claim 2, Davis teaches a method processing of start-conditions:

- wherein said first incoming control-connector is associated with a commencing-activity, the commencing-activity corresponding to one of the process-activities in the process model *[the first control-connector is between W1 and W2 (or 121 and 122, respectively), see Figure 7, “rule node 151”, “condition-action rules”, “the condition is a Boolean expression of values”, “fired”, col. 12, lines 44-51, “every activity instance has a start time”, col. 12, lines 24-26, and “start work node 150”, col. 13 lines 10-20. It is inherent that the commencing activity occurs with the start work node and the next node with the control-connector being the connecting agent of the two nodes.];*
- wherein said timed-evaluation-step uses as starting point for said time-interval the point in time when said commencing-activity is completed. *[“every activity instance has a start time and a complete time”, col. 12, lines 24-26, and “start work node 150”, “end work node”, col. 13 lines 10-20, and “OpenPM engine 20 identifies all nodes that are reachable from a given node”, col. 17, lines 53-56, “Boolean expression” is used to determine either completed or not completed (traversed), col. 12, lines 44-51].*

6. Referring to claim 3, Davis teaches a method for processing of start-conditions:
 - wherein said first incoming control-connector is associated with a path from said commencing-activity to said target-activity [*the first control-connector is between W1 and W2 (or 121 and 122, respectively), see Figure 7, "path, col. 15, lines, 53-67, "rule node 151", "fired", col. 12, lines 44-51, "every activity instance has a start time", col. 12, lines 24-26, and "start work node 150", col. 13 lines 10-20. It is inherent that the commencing activity occurs with the start work node and the next node with the control-connector being the connecting agent of the two nodes.*];
 - said timed-evaluation-step is continuing the processing to start said target-activity, if said associated path has been traversed [*"traversed" then can be "resetted" and then can be "re-executed", col. 7, lines 27-35, "every activity instance has a start time", col. 12, lines 24-26, and "start work node 150", col. 13 lines 10-20.*];
4. Applicant claims a system comprising means adapted for carrying out the steps of the method according to anyone of the preceding claims 1 to 3. Referring to claim 4, it is rejected for the same reasons as stated in the rejections of claims 1-3.
5. Applicant claims a data processing program for execution in a data processing system comprising software code portions for performing a method according to anyone of the preceding claims 1 to 3. Referring to claim 5, it is rejected for the same reasons as stated in the rejections of claims 1-3. In addition, Davis includes a data processing program for

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execution in a data processing system comprising software [*“computer”, “process”, “processor”, “executes”, “memory”, “input/output”, see Abstract*].

7. Applicant claims a computer program product stored on a computer usable medium, comprising computer readable program means for causing a computer to perform a method according to anyone of the preceding claims 1 to 3. Referring to claim 6, it is rejected for the same reasons as stated in the rejections of claims 1-3. In addition, Davis includes a data processing program for execution in a data processing system comprising software [*“computer”, “process”, “processor”, “executes”, “memory”, “input/output”, see Abstract*].

Arguments

8. *Applicant argues on page 4 that Davis fails to disclose the feature of a “timed-evaluation-step” for evaluating whether one of the incoming control connectors is associated with a time interval, and if so, whether the time interval has been met.*

In response, Examiner respectfully disagrees. Davis teaches that the “rule language” can be altered in the program of “rule nodes” to customize the rules or conditions (*col. 7, lines 9-15*). These rule nodes are capable of being programmed to evaluate conditions such as when a certain time interval has occurred. When the rule node conditions are satisfied, Davis teaches “arcs” being fired or activated. These arcs described in the reference of Davis are control connectors.

9. *Nowhere does Davis teach or suggest associating a time interval with a control connector, and moreover, evaluating whether an incoming control connector is associated with a time interval. In this regard, the Examiner seems to analogize the “time at which each inward arc is fired” with the “time interval” recited in the claimed invention. However, Applicants*

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submit that the time when an arc fires defines a specific point in time rather than an interval, and thus cannot reasonably be analogized to the time interval as the term is used in the subject claims.

In response, Examiner respectfully disagrees. Applicant is referred to the response of argument above in #8. In addition, the arcs being fired are not defined to be a specific point in time. Again, these arcs are just control connectors that convey the data/information when they are activated/fired upon, and this will occur whether the data is a specific point of time or an interval (if programmed that way from the rule node).

10. *Applicant argues on page 5 that Davis fails to teach or remotely suggest associating control connectors with a time interval and therefore evaluation of a join condition only takes place after all incoming control connectors of a target activity have been evaluated.*

In response, Examiner respectfully disagrees. Davis teaches that the “rule language” can be altered in the program of “rule nodes” to customize the rules or conditions (col. 7, lines 9-15). These rule nodes are capable of being programmed to evaluate conditions such as when a certain time interval has occurred. When the rule node conditions are satisfied, Davis teaches “arcs” being fired or activated. These arcs described in the reference of Davis are control connectors.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *evaluation of a join condition only takes place after all incoming control connectors of a target activity have been evaluated.*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, the rule language of Davis's system can be programmed and modified/customized so that that evaluation of a join

condition only takes place after all incoming control connectors of a target activity have been evaluated.

11. Applicant argues on page 5 that Davis fails to disclose any mechanism whatsoever that allows a target activity to proceed the moment a time interval associated with an incoming control connector has been met, even though all incoming control connectors have not been evaluated.

In response, it is inherent that for the rule node condition statements, an arc is not fired or activated until the condition is satisfied because that is what condition statements do. This will happen all the time, even though all incoming control connectors have not been evaluated.

12. Applicant argues on pages 5-6 that Davis fails to teach or suggest the timed-evaluation step as utilizing, as a starting point for the time interval, the point in time when a commencing activity is completed.

In response, Examiner respectfully disagrees. Applicant is referred to the response of argument above in #8.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 9:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Grant can be reached on (703) 308-1108. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 746-7140.

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June 30, 2003


MAJID BAKHAKHAH
PRIMARY EXAMINER